

WHAT IS CLAIMED IS:

Sub D31 1. A DDS compound which comprises a carboxy(C₁₋₄)alkyldextran polyalcohol modified with a saccharide compound and a residue of drug compound bound to the carboxy(C₁₋₄)alkyldextran polyalcohol.

2. The DDS compound according to claim 1, wherein the carboxy(C₁₋₄)alkyldextran polyalcohol modified with a saccharide compound and the residue of drug compound are bound to each other by means of a spacer.

3. The DDS compound according to claim 2, wherein the spacer comprises one amino acid or 2 to 8 amino acids linked by peptide bond(s).

Sub A1 4. The DDS compound according to any one of claims 1 to 3, wherein the carboxy(C₁₋₄)alkyldextran polyalcohol modified with a saccharide compound is formed by binding a saccharide compound and a carboxy(C₁₋₄)alkyldextran polyalcohol by means of a linker.

Sub D33 5. The DDS compound according to claim 4, wherein the carboxy(C₁₋₄)-alkyldextran polyalcohol modified with a saccharide compound has a cluster modification by saccharide compounds bound by means of a linker.

6. A DDS compound which is obtainable by binding a residue of a drug compound to a carboxy(C₁₋₄)alkyldextran polyalcohol in which a part of carboxyl groups of the carboxy(C₁₋₄)alkyl moiety are modified with a saccharide compound.

7. The DDS compound according to claim 6, which is obtainable by binding the carboxy(C₁₋₄)alkyldextran polyalcohol and the residue of drug compound by means of a spacer.

Sub A2 8. The DDS compound according to claim 6 or 7, which is obtainable by binding the residue of drug compound to the carboxy(C₁₋₄)alkyldextran polyalcohol which is produced by binding the saccharide compound or a linker bound with the saccharide compound to a part of carboxyl groups of the carboxy(C₁₋₄)alkyl moiety of the carboxy(C₁₋₄)alkyldextran polyalcohol.

Sub D35 9. A DDS compound which is obtainable by modifying with a saccharide compound a carboxy(C₁₋₄)alkyldextran polyalcohol in which a residue of a drug compound is bound to a part of carboxyl groups of the carboxy(C₁₋₄)alkyl moiety by means of a spacer.

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10. The DDS compound according to claim 9, which is obtainable by binding the carboxy(C₁₋₄)alkyldextran polyalcohol and the saccharide compound by means of a linker.

11. The DDS compound according to claim 9 or 10, which is obtainable by modifying with a saccharide compound a carboxy(C₁₋₄)alkyldextran polyalcohol produced by binding a residue of drug compound to a part of carboxyl groups of the carboxy(C₁₋₄)alkyl moiety of the carboxy(C₁₋₄)alkyldextran polyalcohol by means of a spacer comprising one amino acid or a spacer comprising 2 to 8 amino acids linked by peptide bond(s).

12. The DDS compounds according to any one of claims 1 to 11, wherein the saccharide compound is galactose or galactosamine, or a derivative thereof.

13. The DDS compounds according to any one of claims 1 to 12, wherein the saccharide compound is N-acetylgalactosamine,

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14. The DDS compounds according to claim 12, wherein substitution degree of galactose or galactosamine or a derivative thereof, or clustered galactose or galactosamine or derivative thereof is 0.01-1.0 per saccharide residue of the carboxy(C₁₋₄)alkyldextran polyalcohol.

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15. The DDS compounds according to any one of claims 1 to 14, wherein the dextran polyalcohol that constitutes the carboxy(C₁₋₄)alkyldextran polyalcohol is a dextran polyalcohol which is obtained by treating dextran under conditions that enable substantially complete polyalcoholization.

16. The DDS compound according to any one of claims 1 to 15, wherein the carboxy(C₁₋₄)alkyldextran polyalcohol is carboxymethyldextran polyalcohol.

17. The DDS compound according to any one of claims 1 to 16, wherein the drug compound is an antineoplastic agent or an anti-inflammatory agent.

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18. The DDS compound according to claim 17, wherein the drug compound is an antineoplastic agent.

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19. The DDS compound according to any one of claims 1 to 17, wherein the drug compound is (1S,9S)-1-amino-9-ethyl-5-fluoro-2,3-dihydro-9-hydroxy-4-methyl-1H,12H-benzo[de]pyrano[3',4':6,7]indolizino[1,2-b]quinoline-10,13(9H,15H)-dione.

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20. The DDS compound according to claim 19, which is a medicament for

treating liver cancer.

Sub A6 21. A carboxy(C₁₋₄)alkyldextran polyalcohol for use in the manufacture of the DDS compound according to any one of claims 1 to 20.

Sub A2 22. A carboxy(C₁₋₄)alkyldextran polyalcohol modified with a saccharide compound.

23. A polymer carrier comprising a carboxy(C₁₋₄)alkyldextran polyalcohol modified with a saccharide compound.

24. A method for measuring a DDS compound in which a polymer carrier and a residue of drug compound are bound to each other by means of a spacer comprising 2 to 8 amino acids linked by peptide bond(s), which comprises the steps of treating the DDS compound with a peptidase, and measuring the resulting hydrolysate.

25. The method according to claim 24, which is used for measurement of the DDS compound contained in a biological sample.

Sub A3 26. The method according to claim 24, which is used for measurement of content of the residue of a drug compound introduced to the DDS compound.

Sub A7 27. The method according to any one of claims 24 to 26, wherein the hydrolysate is the drug compound.

28. The method according to any one of claims 24 to 26, wherein the hydrolysate is a compound comprising the residue of drug compound bound with a part of the spacer.

29. The method according to claim 28, wherein the part of the spacer is one amino acid derived from the spacer.

Sub A8 30. The method according to any one of claims 24 to 29, wherein the polymer carrier is a polysaccharide derivative having carboxyl groups.

31. The method according to claim 30, wherein the polymer carrier is a carboxy(C₁₋₄)alkyldextran polyalcohol.

Sub A9 32. The method according to any one of claims 24 to 31, wherein the drug compound introduced to the DDS compound is an antineoplastic agent or an anti-inflammatory agent.

33. The method according to any one of claims 24 to 32, wherein the spacer is a tetrapeptide represented by -Gly-Gly-Phe-Gly- from the N-terminal or a tetrapeptide represented by -Gly-Gly-Gly-Phe- from the N-terminal.

34. The method according to any one of claims 24 to 32, wherein the spacer is a group represented by -Gly-Gly-Phe-Gly-NH-Y'-CH₂-O-CO- from the N-terminal or a group represented by -Gly-Gly-Gly-Phe-NH-Y'-CH₂-O-CO- from the N-terminal wherein Y' represents p-phenylene group.

35. The method according to any one of claims 24 to 34, wherein the peptidase is α -chymotrypsin or papain.

36. The method according to any one of claims 24 to 35, wherein the drug compound is (1S,9S)-1-amino-9-ethyl-5-fluoro-2,3-dihydro-9-hydroxy-4-methyl-1H,12H-benzo[de]pyrano[3',4':6,7]indolizino[1,2-b]quinoline-10,13(9H,15H)-dione.

37. The method according to any one of claims 24 to 29, which is used for measurement of a DDS compound in which a carboxy(C₁₋₄)alkyldextran polyalcohol and (1S,9S)-1-amino-9-ethyl-5-fluoro-2,3-dihydro-9-hydroxy-4-methyl-1H,12H-benzo[de]pyrano[3',4':6,7]indolizino[1,2-b]quinoline-10,13(9H,15H)-dione are bound to each other by means of a spacer comprising a tetrapeptide represented by -Gly-Gly-Phe-Gly- or a tetrapeptide represented by -Gly-Gly-Gly-Phe- from the N-terminal.

Subj 47 38. The method according to claim 37, wherein α -chymotrypsin or papain is used as the peptidase, and (1S,9S)-9-ethyl-5-fluoro-1-glycylamino-2,3-dihydro-9-hydroxy-4-methyl-1H,12H-benzo[de]pyrano[3',4':6,7]indolizino[1,2-b]quinoline-10,13(9H,15H)-dione is measured as the hydrolysate.